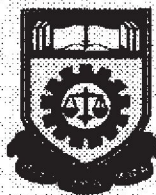


**ENHANCEMENT OF THE SCHEDULING ALGORITHM  
(SOFTWARE AND INTERFACING DEVELOPMENT)**

**Report presented in partial fulfilment for the award of the  
Bachelor (Hons.) in Electrical Engineering  
Of  
INSTITUTE TEKNOLOGI MARA**



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## **ABSTRACT**

Batch production is used throughout the process industries for the manufacture of fine chemical, plastic, pharmaceutical, paints, ceramics and cosmetics. The batch process is economically desirable whenever a complex product quantity is small but the product value or product demand is very high.

This research work describe the enhancement of scheduling algorithm of batch process using shortest path and k<sup>th</sup> shortest path. By using turbo pascal programming language, the software developed a menu driven gharahical tool to become more powerful and attractive for simulation schedule and interfacing to justify the finding. The PCL-812 is used as an I/O board for interfacing with LED as a node or activity.

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# CHAPTER 1

## 1. INTRODUCTION

### 1.1 Background

In batch processing systems, the program and input data must be entered into the computer system before the program can be executed along with other program in a batch. Similar all output is collected and sent to the specified output device. In batch processing the certain information must be contained in some outside source such as a manual. *Batch process more economical and efficient.*

Batch process control then, is the execution of the prescribed sequence of operations. Thus, in simplest cases batch control may be limited to switching operations, more general case it will also involve much more, incorporating some continuous control of variables such as, for example temperature, pressure, etc.

Batch process control system known as batch production or plant. Batch plant are frequently required to handle the manufacturer of more than one product and also the designer, in trying to fit together a number of discontinuous operations, has to be much more concerned with the demention of time.